Attorney Docket No.: P3586US00

Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: Sebastian KRAUFVELIN et al. | Confirmation No.: 2122

Application No.: 10/529,697 Group Art Unit: 2617

Filed: October 3, 2003 Examiner: Torres, Marcos L

For: PROVISION OF INFORMATION REGARDING A MOBILE STATION

Commissioner for Patents Alexandria, VA 22313-1450

APPEAL BRIEF

Dear Sir:

This Appeal Brief is submitted in support of the Notice of Appeal dated August 27, 2010.

I. REAL PARTY IN INTEREST

The real party in interest is Nokia Corporation, a corporation organized under the laws of Finland and having a place of business at Keilalahdentie 4, FIN-02150 Espoo, Finland. The above referenced patent application is assigned to Nokia Corporation.

II. RELATED APPEALS AND INTERFERENCES

Appellants are unaware of any related appeals and interferences.

III. STATUS OF THE CLAIMS

Claims 1-21 are pending in this appeal, of which claim 22 has previously been canceled. No claim is allowed. Claims 1, 10, 13, and 17-21 were previously presented. Claims 2-9, 11, 12, and 14-16 are original. This appeal is therefore taken from the final rejection of claims 1-21 on May 27, 2010.

IV. STATUS OF AMENDMENTS

No Amendment has been filed subsequent to the issuance of the Final Office Action on May 27, 2010.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The claimed invention addresses problems associated with providing information regarding a mobile station. In particular, an area event notification request is received at a location service entity provided in association with a communication system. The area event notification request contains information associated with the identity of the mobile station and an area of interest. Monitoring for an event indicative of a change in the presence status of the mobile station relative to the area of interest is then activated. A notification is signaled in response to detection of such an event.

Independent claim 1 recites:

1. A method, comprising:

receiving an area event notification request from a client at a location service entity provided in association with a communication system, the area event notification request containing

information associated with the identity of a mobile station and a geographical area of interest (See, e.g., Specification, page 6, lines 17-21, page 14, lines 19-28; Fig. 3, client 8);

activating monitoring for an event indicative of a change in the presence status of the mobile station relative to said geographical area of interest (See, e.g., Specification, page 6, lines

22-24; Fig. 3);

signalling a notification to the client in response to detection of such event interest (See, e.g., Specification, page 6, lines 25-26; Fig. 3); and

providing information regarding services to the mobile station in response to a notification that the mobile station is present in the geographical area of interest interest (See, e.g., Specification, page 8, lines 7-10; Fig. 3).

Dependent claim 2 recites:

A method as claimed in claim 1, wherein the monitoring is activated at the mobile station (See, e.g., Specification, page 7, lines 19-20).

Dependent claim 3 recites:

 A method as claimed in claim 1, wherein the monitoring is based on the identity of at least one cell of the communication system selected based on said information of the area of interest (See, e.g., Specification, page 7, lines 22-29; page 14, line 30-page 15, line 5, lines 21-27).

Dependent claim 7 recites:

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7. A method as claimed in claim 1, wherein the area of interest is defined by means of a shape of the area (See, e.g., Specification, page 13, lines 31-33; page 14, lines 1-10; Fig. 2, shape 5).

Dependent claim 8 recites:

8. A method as claimed in claim 1, wherein the request contains further information regarding the event to reported, the further information defining whether entering or leaving or the area of interest shall be reported (See, e.g., Specification, page 14, lines 25-28; Fig. 3).

Dependent claim 15 recites:

 A method according to claim 1 wherein the area of interest is taken into consideration in cell selection (See, e.g., Specification, page 14, line 30-page 15, line 42; Fig. 2).

Dependent claim 17 recites:

17. A method according to claim 1 further comprising confirming the location of the mobile station responsive to the signalling location, to ensure the location corresponds to the area of interest (See, e.g., Specification, page 5, lines 11-13).

Independent claim 18 recites:

18. An apparatus, comprising:

- a location service entity configured to receive an area event notification request from a client containing information associated with the identity of a target mobile station and a geographical area of interest (See, e.g., Specification, page 6, line 32-page 7, line 2, page 14, lines 19-28; Fig. 3, client 8);
- a monitoring entity configured to monitor, in response to receiving said request, an event indicative of a change in the presence status of the target mobile station relative to said geographical area of interest and signal a notification to the client in response to detection of such event, the apparatus further configured to provide information regarding services to the mobile station in response to a notification that the mobile station is present in the geographical area of interest (See, e.g., Specification, page 7, lines 3-7; Fig. 3);

Dependent claim 20 recites:

20. An apparatus as claimed in claim 18, wherein the monitoring is based on an area identifier associated with the operation of the communication system (See, e.g., Specification, page 14, lines 1-10).

Dependent claim 21 recites:

21. An apparatus as claimed in claim 18, wherein the area of interest is defined by means of the shape thereof (See, e.g., Specification, page 14, lines 1-10; Fig. 2, shape 5).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1, 4-6, 9-14, 16, 18, and 19, were finally rejected for obviousness under 35 U.S.C. \$ 103(a) based on *Murray* (US 6,484,033) in view of *Cedervall et al.* (US 2004/0203900).

Claim 2 was finally rejected for obviousness under 35 U.S.C. § 103(a) based on *Murray* (US 6,484,033) and *Cedervall et al.* (US 2004/0203900) in view of *Wilson et al.* (US 7,203,502).

Claims 3, 15, and 20 were finally rejected for obviousness under 35 U.S.C. § 103(a) based on *Murray* (US 6,484,033) and *Cedervall et al.* (US 2004/0203900) in view of *Havinis et al.* (US 6,169,899).

Claims 7, 8, and 21 were finally rejected for obviousness under 35 U.S.C. § 103(a) based on *Murray* (US 6,484,033) and *Cedervall et al.* (US 2004/0203900) in view of *Miriyala et al.* (US 7,024,195).

Claim 17 was finally rejected for obviousness under 35 U.S.C. § 103(a) based on *Murray* (US 6,484,033) and *Cedervall et al.* (US 2004/0203900) in view of *Nakagawa* (US 5,621,414).

VII. ARGUMENT

CLAIMS 1, 4-6, 9-14, 16, 18, AND 19 ARE NOT RENDERED OBVIOUS BY A. MURRAY AND CEDERVALL ET AL. BECAUSE NEITHER REFERENCE COMBINATION THEREOF DISCLOSES OR SUGGESTS RECEIVING AN AREA EVENT NOTIFICATION REQUEST FROM A CLIENT AT A LOCATION SERVICE ENTITY, WHEREIN THE AREA EVENT NOTIFICATION REQUEST CONTAINS INFORMATION ASSOCIATED WITH THE IDENTITY OF A MOBILE STATION AND A INTEREST: GEOGRAPHICAL AREA OF OR PROVIDING INFORMATION REGARDING SERVICES TO THE MOBILE STATION RESPONSIVE TO A NOTIFICATION THAT THE MOBILE STATION IS IN THE GEOGRAPHICAL AREA OF INTEREST.

The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention under any statutory provision always rests upon the Examiner. *In re Mayne*, 104 F.3d 1339, 41 USPQ2d 1451 (Fed. Cir. 1997); *In re Deuel*, 51 F.3d 1552, 34 USPQ2d 1210 (Fed. Cir. 1995); *In re Bell*, 991 F.2d 781, 26 USPQ2d 1529 (Fed. Cir. 1993); *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In rejecting a claim under 35 U.S.C. §103, the Examiner is required to provide a factual basis to support the obviousness conclusion. *In re Warner*, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967); *In re Lunsford*, 357 F.2d 385, 148 USPQ 721 (CCPA 1966); *In re Freed*, 425 F.2d 785, 165 USPO 570 (CCPA 1970).

Independent claim 1 recites, *inter alia*, "receiving an area event notification request from a client at a location service entity provided in association with a communication system, the area event notification request containing information associated with the identity of a mobile station and a geographical area of interest" and "providing information regarding services to the mobile station in response to a notification that the mobile station is present in the geographical area of interest." Independent claim 18 recites, *inter alia*, "a location service entity configured to receive an area event notification request from a client containing information associated with the identity of a target mobile station and a geographical area of interest"

and "the apparatus further configured to provide information regarding services to the mobile station"

The Examiner has acknowledged in the Final Office Action, at page 6, that Murray does not disclose providing "information regarding services to the mobile station" and turns to Cedervall et al. to provide for this claim feature. Specifically, the Examiner cites paragraphs [0022], [0024], [0051], and [0069] of Cedervall et al. A review of these cited portions, as well as other portions, of Cedervall et al. reveals that Cedervall et al. describes a system wherein a request for location-based services is received, and that in conjunction with receiving this request for location-based services, a unique identifier associated with the wireless unit is obtained (paragraph [0022]). Further, once the location information is procured, location-based services may be provided in response to the request (paragraph [0024]). Thus, in Cedervall et al., in response to a request for location-based services, the location-based service, itself, not "information regarding services," as claimed, is provided.

At page 2 of the Final Office Action, the Examiner asserted that providing a service is tantamount to providing information about that service; and that since paragraphs [0069]-[0070] of Cedervall et al. disclose providing information about other services, a prima facte case of obviousness has been established. Appellants respectfully disagree.

Actually providing a service is not equivalent to providing information about that service. Connecting to AOL, for example, provides an Internet connection service to a user, but tells the user nothing about AOL, its policies, the company, etc., i.e., simply providing the service, per se, does not provide information about the service. Giving someone a camera, for example, provides no information about the camera, unless one is also given the instruction manual, or one obtains information about the camera, e.g., lens dimension, range, etc. by an inspection. Accordingly, the

Examiner has erred in equating the provision of a service, itself, as providing information about that service.

Paragraphs [0069]-[0070] of Cedervall et al. relate to limiting searches by a mobile unit to a locality associated with the mobile, or wireless, unit, and a service provider generating a page including localized information relative to the wireless unit. But nothing herein relates to "providing information regarding services to the mobile station in response to a notification that the mobile station is present in the geographical area of interest." Rather, the service is merely provided. Information is provided to the wireless unit in Cedervall et al. but that information is the information content sought by the wireless device; it is not information regarding services.

Accordingly, since neither of the applied references discloses or suggests "providing information regarding services to the mobile station in response to a notification that the mobile station is present in the geographical area of interest" or "apparatus further configured to provide information regarding services to the mobile station in response to a notification that the mobile station is present in the geographical area of interest," no prima facie case of obviousness has been established with regard to the instant claimed subject matter.

Moreover, at page 6 of the Final Office action, the Examiner asserted that *Murray* discloses, at col. 10, lines 19-30, the claim feature of "receiving an area event notification request from a client." However, the cited portion of *Murray* describes "event information," "event location," "event backup information," and "event criteria parameters," but does not describe either "an area event notification" or "receiving an area event notification request from a client." In fact, col. 10, lines 19-23, recite

The event information 120 includes an event time 132, an event location 134, an event backup information 136, and event criteria parameters 129, received from either the schedule manager 12 or from the wireless communication device 32.

Thus, in *Murray*, any event information is **received from the client** (the Examiner identified the wireless communication device 32 as corresponding to the claimed client). This is in direct contrast to the claimed subject matter which recites "receiving an area event notification **request from a client**," i.e., the client requests area event notification; it does not send such event notification as would appear to be the case in *Murray*. Accordingly, in this regard, even assuming that the event information in *Murray* could be construed to correspond to the claimed "area event notification," which, Appellants assert, cannot be so construed, *Murray* teaches away from the instant claimed subject matter, which is evidence of non-obviousness. A reference may be said to "teach away" when a person of ordinary skill, upon [examining] the reference, would be discouraged from following the path set out in the reference or would be led in a direction divergent from the path that was taken by the applicant. *In re Gurley*, 27 F.3d 551, 553, 31 USPO2d 1130, 1131 (Fed. Cir. 1994).

At page 2 of the Final Office Action, the Examiner asserted that *Murray* discloses both an identity and a geographical location at col. 7, lines 53-65, and col. 10, lines 19-24, concluding that *Murray* discloses the claim feature of "receiving an area event notification request from a client." Appellants respectfully disagree.

The cited portion of column 7 of *Murray* relates to an event schedule including an identification of the mobile device and receiving current time. No mention of location is made. The cited potion of column 10 discloses that event information may include event time and event location. Even assuming, *arguendo*, these two portions of *Murray* can somehow be taken together to form a teaching of a combination of identity and geographical information that could.

arguendo, constitute "an area notification request," as alleged by the Examiner, the claimed subject matter is still not taught or suggested because the claim feature in question recites, "receiving an area event notification request from a client." The client in Murray is not requesting an area event notification. Thus, again, even assuming that the event information in Murray could be construed to correspond to the claimed "area event notification," which, Appellants assert, cannot be so construed, Murray teaches away from the instant claimed subject matter because in Murray, at best, any event information is received from the client; the client is not doing the requesting.

Accordingly, again, no *prima facie* case of obviousness has been established with regard to the instant claimed subject matter. Therefore, reversal, by the Honorable Board, of the rejection of claims 1, 4-6, 9-14, 16, 18, and 19 under 35 U.S.C. § 103(a) is respectfully solicited.

B. CLAIM 2 IS NOT RENDERED OBVIOUS BY MURRAY AND CEDERVALL ET AL. IN VIEW OF WILSON ET AL. BECAUSE NONE OF THE REFERENCES OR ANY COMBINATION THEREOF DISCLOSES OR SUGGESTS THAT MONITORING IS ACTIVATED AT THE MOBILE STATION.

Wilson et al., applied for an alleged teaching of the claim 2 feature of "wherein the monitoring is activated at the mobile station," does not cure the deficiencies of Murray and Cedervall et al., argued above. For this reason, alone, claim 2 is allowable.

Moreover, claim 2 is patentable separately from independent claim 1 because the feature of "wherein the monitoring is activated at the mobile station" is absent from the teachings of *Murray* and *Cedervall et al.*, as acknowledged by the Examiner, and *Wilson et al.* provides no incentive to the skilled artisan to modify the *Murray/Cedervall et al.* combination to provide this feature. If the Examiner considers the criteria match of Fig. 7 of *Murray* to correspond to the

claimed activation of monitoring in the sense that the current location of a mobile device is compared to previously received event data and the comparison is indicative of whether a mobile device is within a certain geographical area, it is clear, from *Murray* that any such activation is not at the monitored mobile device but, rather, at application server 76 (see col. 10, lines 24-49). Thus, even if *Wilson et al.* did teach some activation of a monitoring function, there would have been no reason to modify *Murray* by including activation of a monitoring function at the mobile station since this would render *Murray* unsuitable for its intended purpose of using an application server for processing the event data and current location of a mobile device and comparing these values. If a proposed modification would render the prior art being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

The Examiner's rationale for this modification, recited at page 8 of the Final Office Action, is "to provide location based services to the phone such as locating individuals and coordinating meetings." However, such rationale is a mere generalization, falling far short of the "articulated reasoning with some rational underpinnings" required by the U.S. Supreme Court, KSR Int'l Co. v. Teleflex, Inc., 127 S. Ct. 1727, 82 USPQ2d 1385(2007). In any event, there would be no need to place the activation of the monitoring "at the mobile device" to provide for these location based services.

Moreover, Wilson et al. does not disclose "wherein the monitoring is activated at the mobile station," as it is alleged to disclose. The Examiner asserted that this feature is taught at Fig. 1b, in the first step, with item 102. As discussed at col. 6, lines 18 et seq., Wilson et al. discloses a wireless device 102 that requests directions. WAP gateway 104 receives the request for directions and provides it to portal application server 108, which then sends the request to

database 124, and the database provides back information, such as an IP address or other information regarding the registered user of the wireless device 102. The process continues until the direction information sought is sent back to the mobile device by email or SMS messages. There is no disclosure within Wilson et al. indicative of wireless device 102 being the site at which activation of a monitoring operation occurs, as claimed.

At pages 2-3 of the Final Office Action, the Examiner asserted that the proposed combination of references would not render *Murray* unsuitable for its intended purpose because controlling the activation of monitoring from the mobile station "in no way would render Murray unsuitable for its intended purpose, it would work exactly the same way with the mobile station indicating the status to the application server as taught by Wilson in col. 19, lines 16-26." Appellants respectfully disagree.

Because, for the reasons above, any such activation is at application server 76 in Murray, any modification to place control of the activation of monitoring at another location, i.e., at the mobile station, would revamp the entire operating system of Murray. Murray uses an application server for processing the event data and current location of a mobile device and then compares these values for further processing. If the monitoring took place at the mobile station in Murray, the application server would be unable to perform the functions allocated to it.

At page 3 of the Final Office Action, responsive to Appellants' argument that Wilson et al. does not disclose monitoring activated at the mobile station, the Examiner cites col. 19, lines 16-26 of the reference. However, as a review of this cited portion of the references reveals, the user of the mobile device can turn his/her location on or off as to make himself/herself "invisible." But, this teaching, in no way, indicates that the activation of the monitoring for an

event indicative of a change in the presence status of the mobile station relative to said geographical area of interest is performed "at the mobile station."

Accordingly, no *prima* facie case of obviousness has been established regarding the subject matter of claim 2. Accordingly, reversal, by the Honorable Board, of the rejection of claim 2 under 35 U.S.C. § 103(a) is respectfully solicited.

C. CLAIMS 3, 15, AND 20 ARE NOT RENDERED OBVIOUS BY MURRAY AND CEDERVALL ET AL. IN VIEW OF HAVINIS ET AL. BECAUSE NONE OF THE REFERENCES OR ANY COMBINATION THEREOF DISCLOSES OR SUGGESTS THAT MONITORING IS BASED ON THE IDENTITY OF AT LEAST ONE CELL OF THE COMMUNICATION SYSTEM, THE CELL SELECTED BASED ON SAID INFORMATION OF THE AREA OF INTEREST.

Havinis et al., applied for the alleged teaching of monitoring based on the identification of at least one identity of at least one cell of a communication system selected based on information regarding the area of interest, does not cure the deficiencies of Murray and Cedervall et al., argued above. For this reason, alone, claims 3, 15, and 20 are allowable.

However, claims 3, 15, and 20 are separately patentable from their independent claims. Claim 3, for example, recites, "wherein the monitoring is based on the identity of at least one cell of the communication system selected based on said information of the area of interest." This feature is absent from the teachings of *Murray* and *Cedervall et al.*, as acknowledged by the Examiner, and *Havinis et al.* provides no incentive to the skilled artisan to modify the *Murray/Cedervall et al.* combination to provide this feature. *Havinis et al.* is directed to providing historical data for location services wherein a positioning request and cell id can be routed directly to an MLC 370 (step 455 in Fig. 4A) and position of a mobile terminal can be

determined (e.g., col. 2, lines 42-46). Notwithstanding a general disclosure of providing a "cell id," there is no disclosure or suggestion in *Havinis et al.* of basing the monitoring of an operation as claimed (i.e., "monitoring for an event indicative of a change in the presence status of the mobile station relative to said geographical area of interest") "on the identity of at least one cell of the communication system selected based on said information of the area of interest."

At paragraph 7 on page 3 of the Final Office Action, the Examiner asserted that *Havinis et al.* discloses monitoring of the mobile devices per cell id at column 5, lines 46-50 and column 2, lines 42-46, providing the teaching that is missing from the other two references.

The cited portions of *Havinis et al.* relate to determining position of a mobile station and to routing a positioning request and cell id to a Mobile Switching Center. There is no indication therein, or in any other portion of *Havinis et al.*, that "monitoring is based on the identity of at least one cell of the communication system selected based on said information of the area of interest." Thus, as claimed, monitoring is based on cell identity and the selection of the cell being identified is based on the information of the area of interest. Nothing in *Havinis et al.*, or in the other two applied references, or in any combination thereof, discloses or suggests these claim features

Accordingly, no *prima facie* case of obviousness has been established regarding the subject matter of claims 3, 15, and 20. Therefore, reversal, by the Honorable Board, of the rejection of claims 3, 15, and 20 under 35 U.S.C. § 103(a) is respectfully solicited.

D. CLAIMS 7, 8, AND 21 ARE NOT RENDERED OBVIOUS BY MURRAY AND CEDERVALL ET AL. IN VIEW OF MIRIYALA ET AL. BECAUSE NONE OF THE REFERENCES OR ANY COMBINATION THEREOF DISCLOSES OR SUGGESTS THAT THE AREA OF INTEREST IS DEFINED BY MEANS OF A SHAPE OF THE AREA. Miriyala et al., applied for the alleged teaching of "wherein the area of interest is defined by means of a shape of the area," does not cure the deficiencies of Murray and Cedervall et al., argued above. At least for this reason, claims 7, 8, and 21 are allowable.

However, claims 7, 8, and 21 are separately patentable from their independent claims. Claim 7, for example, recites, "wherein the area of interest is defined by means of a shape of the area." While the Examiner asserted that col. 3, lines 42-60, of *Miriyala et al.* discloses this feature, there is nothing therein relative to defining an area of interest "by means of a **shape** of the area," as claimed. The only mention of a coverage area in the cited portion of the reference is that "the location-based grouping...can be used in any wireless network-based application that requires information regarding the location of subscriber units within a **coverage area** that is higher in resolution than that provided only by the wireless system transmitters." There is no indication of any concern by *Miriyala et al.* with the "shape" of the coverage area.

At page 4 of the Final Office Action, the Examiner asserted that Figure 1 of Miriyala et al. discloses defining an area of interest by its shape. Appellants respectfully disagree.

Figure 1 of the reference may depict coverage areas 24 and 26 with a definite shape, but that is just an arbitrary and convenient way to depict such coverage areas in the context of the invention. There is, however, no indication, whatsoever, in *Miriyala et al.* that the area of interest is "defined by means of a shape of the area." There is no such definition of the area of interest in *Miriyala et al.*

Accordingly, no *prima facie* case of obviousness has been established regarding the subject matter of claims 7, 8, and 21. Therefore, reversal, by the Honorable Board, of the rejection of claims 7, 8, and 21 under 35 U.S.C. § 103(a) is respectfully solicited.

E. CLAIM 17 IS NOT RENDERED OBVIOUS BY MURRAY AND CEDERVALL ET AL. IN VIEW OF NAKAGAWA BECAUSE NONE OF THE REFERENCES OR ANY COMBINATION THEREOF DISCLOSES OR SUGGESTS CONFIRMING THE LOCATION OF THE MOBILE STATION RESPONSIVE TO THE SIGNALLING LOCATION, TO ENSURE THE LOCATION CORRESPONDS TO THE AREA OF INTEREST.

Nakagawa, applied for the alleged teaching of "confirming the location of the mobile station responsive to the signalling location, to ensure the location corresponds to the area of interest" does not cure the deficiencies of Murray and Cedervall et al., argued above. Thus, claim 17 is allowable.

Moreover, claim 17 is separately patentable from independent claim 1. Claim 17, recites "confirming the location of the mobile station responsive to the signalling location, to ensure the location corresponds to the area of interest." While the Examiner asserted that col. 1, lines 7-18, of *Nakagawa* discloses this feature, and the cited portion does discuss a "location confirming system," there is nothing therein relative to "confirming the location of the mobile station responsive to the signalling location, to ensure the location corresponds to the area of interest," as claimed. The Examiner's rationale for combining *Nakagawa* with *Murray* and *Cedervall et al.*, explained at page 10 of the Final Office Action, is "to minimize errors." This general rationale is so thin as to constitute no rationale at all, and clearly does not rise to the standard of "articulated reasoning with some rational underpinnings" required in KSR.

At page 4 of the Final Office Action, the examiner asserted that if a location confirming system is being used, it must be used to confirm a location is in a specific area. Appellant disagree. While Nakagawa discloses a system to perform location confirmation, there is no disclosure therein that the location corresponds to the area of interest," as claimed, and the Examiner has pointed to nothing to the contrary.

Accordingly, no *prima facie* case of obviousness has been established regarding the subject matter of claim 17. Therefore, reversal, by the Honorable Board, of the rejection of claim 17 under 35 U.S.C. § 103(a) is respectfully solicited.

VIII. CONCLUSION AND PRAYER FOR RELIEF

For the foregoing reasons, Appellants request the Honorable Board to reverse each of the Examiner's rejections.

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To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is

hereby made. Please charge any shortage in fees due in connection with the filing of this paper,

including extension of time fees, to Deposit Account 504213 and please credit any excess fees to

such deposit account.

Respectfully Submitted,

DITTHAVONG MORI & STEINER, P.C.

October 18, 2010 Date /Phouphanomketh Ditthavong/

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IX. CLAIMS APPENDIX

1. A method, comprising:

receiving an area event notification request from a client at a location service entity provided in association with a communication system, the area event notification request containing information associated with the identity of a mobile station and a geographical area of interest;

activating monitoring for an event indicative of a change in the presence status of the mobile station relative to said geographical area of interest;

signalling a notification to the client in response to detection of such event; and providing information regarding services to the mobile station in response to a notification that the mobile station is present in the geographical area of interest.

- 2. A method as claimed in claim 1, wherein the monitoring is activated at the mobile station.
- A method as claimed in claim 1, wherein the monitoring is based on the identity of at least one cell of the communication system selected based on said information of the area of interest.
- A method as claimed in claim 1, wherein the monitoring is based on at least one location area determined based on said information of the area of interest.
- A method as claimed in claim 1, wherein the monitoring is based on at least one routing area determined based on said information of the area of interest.
- A method as claimed in claim 1, wherein the monitoring is based on at least one service area determined based on said information of the area of interest

- A method as claimed in claim 1, wherein the area of interest is defined by means of a shape of the area.
- 8. A method as claimed in claim 1, wherein the request contains further information regarding the event to reported, the further information defining whether entering or leaving or the area of interest shall be reported.
- A method as claimed in claim 1, comprising cancelling the request for area event notifications.
- 10. A method according to claim 9, wherein the request is cancelled after the signalling notification step.
- A method according to claim 1 wherein said signalling notification is responsive to detection of said event over a predetermined time period.
- A method according to claim 1 wherein successive signalling within a predetermined time period is limited.
- 13. A method according to claim 12, wherein a location service (LCS) client defines the predetermined time period such that successive signalling is limited.
- 14. A method according to claim 12, wherein a network operator defines the predetermined time period such that successive signalling is limited.
- 15. A method according to claim 1 wherein the area of interest is taken into consideration in cell selection.

- 16. A method according to claim 1 wherein the step of receiving an area event notification request is responsive to a location update.
- 17. A method according to claim 1 further comprising confirming the location of the mobile station responsive to the signalling location, to ensure the location corresponds to the area of interest.

18. An apparatus, comprising:

- a location service entity configured to receive an area event notification request from a client containing information associated with the identity of a target mobile station and a geographical area of interest;
- a monitoring entity configured to monitor, in response to receiving said request, an event indicative of a change in the presence status of the target mobile station relative to said geographical area of interest and signal a notification to the client in response to detection of such event, the apparatus further configured to provide information regarding services to the mobile station in response to a notification that the mobile station is present in the geographical area of interest.
- 19. An apparatus as claimed in claim 18, wherein the monitoring entity provided in association with the target mobile station.
- 20. An apparatus as claimed in claim 18, wherein the monitoring is based on an area identifier associated with the operation of the communication system.
- 21. An apparatus as claimed in claim 18, wherein the area of interest is defined by means of the shape thereof.

22. (Canceled)

X. EVIDENCE APPENDIX

Appellants are unaware of any evidence that is required to be submitted in the present Evidence Appendix.

XI. RELATED PROCEEDINGS APPENDIX

Appellants are unaware of any related proceedings that are required to be submitted in the present Related Proceedings Appendix.